

REMARKS

This Amendment is fully responsive to the non-final Office Action dated February 2, 2011, issued in connection with the above-identified application. Claims 15-22 and 24-29 are pending in the present application. With this Amendment, claims 15, 21, 22 and 26-29 have been amended; claims 16-20 have been cancelled without prejudice or disclaimer to the subject matter therein; and claim 30 has been added. No new matter has been introduced by the amendments made to the claims or by the new claim added. Favorable reconsideration is respectfully requested.

I. Interview Summary

The Applicants thank Examiner Dubasky and her supervisor for granting the telephone interview (hereafter "interview") conducted on April 26, 2011 with the Applicants' representative. During the interview, proposed claim amendments to independent claim 15 (as an exemplary independent claim) and the cited prior art were discussed in detail.

With regard to Noburo, it was noted that certain features of the synthesizer do not appear to be disclosed or suggested by the reference. In particular, the features of the synthesizer directed to storing the first TV broadcast signal and parts of the second broadcast signal in the first and second storage devices, respectively, appear to be different from the cited prior art.

With regard to Karaoguz, it was agreed that the provisional application from which the reference claims priority does not fully support the features of the time sharing unit. Accordingly, Karaoguz, with regard to this feature, could be removed as prior art by perfecting the Applicants' foreign priority date of February 9, 2004.

Finally, with regard to Shikakura, the Examiner acknowledged that the line memories (i.e., elements 303 and 304) appear to be connected in series via the latch 306, and therefore may store the same information input from the input terminals 301. Accordingly, the Examiner indicated that further consideration would be given to the amendments and arguments regarding the first and second storage devices upon the filing of a formal response to the outstanding Office Action.

At the conclusion of the interview, the Examiner indicated that further search and consideration, in light of any proposed claim amendments, would be necessary before making any final determinations regarding the allowability of any claims.

II. Prior Art Rejections

In the Office Action, claims 15-17, 26 and 28 have been rejected under 35 U.S.C. 102(b) as being anticipated by Noburo (Japanese Publication No. JP 2002-232809, hereafter “Noburo”); and claim 27 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Noburo. Additionally, claim 19 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Noburo in view of Karaoguz (U.S. Publication No. 2005/0066089, hereafter “Karaoguz”); and claims 20-22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Noburo in view of Karaoguz, and further in view of Shikakura (U.S. Patent No. 6,108,379, hereafter “Shikakura”).

Claims 16, 17, 19 and 20 have been cancelled thereby rendering the above rejection to these claims moot. Additionally, the Applicants have amended independent claims 15 and 26-28 to more clearly distinguish the present invention from the cited prior art. The amendments made to independent claims 15 and 26-28 are consistent with the amendments proposed during the interview conducted on April 26, 2011. For example, independent claim 15 (as amended) recites *inter alia* the following features:

“[a] broadcast receiving apparatus, comprising:...

a synthesizer which specifies the decoding error part of the first TV broadcast signal based on the error information in the decoding error information generated by said detector, specifies the frame of the second TV broadcast signal of which the time is the same as that of the decoding error part based on the presentation time stamp, and generates a composite signal obtained by replacing the decoding error part of the first TV broadcast signal with a corresponding part in the specified frame of the second TV broadcast signal decoded by said decoder;

a first storage device which stores the composite signal outputted from said synthesizer;
and

a second storage device which stores the second TV broadcast signal decoded by said decoder,

wherein the synthesizer stores the first TV broadcast signal decoded by the decoder in said first storage device if said detector has not detected the decoding error part of the first TV broadcast signal, and reads out the part of the second TV broadcast signal corresponding to the decoding error part from said second storage device and stores the readout part in said first

storage device if said detector has detected the decoding error part of the first TV broadcast signal.” (Emphasis added).

The features emphasized above in independent claim 15 are similarly recited in independent claims 26-28 (as amended). As amended, independent claims 26-28 now include the features of dependent claims 19 and 20, and the features emphasized above in independent claim 15 (and similarly recited in independent claims 26-28) are fully supported by the Applicants’ disclosure (see e.g., Fig. 3 and pages 14-20).

The present invention (as recited in independent claims 15 and 26-28) is distinguishable from the cited prior art in that a first storage device stores the composite signal outputted from the synthesizer; and a second storage device stores the second TV broadcast signal decoded by the decoder. Thus, the first storage device and the second storage device store different information.

Additionally, the synthesizer stores the first TV broadcast signal decoded by the decoder in the first storage device if the detector has not detected the decoding error part of the first TV broadcast signal, and reads out the part of the second TV broadcast signal corresponding to the decoding error part from the second storage device and stores the readout part in the first storage device if the detector has detected the decoding error part of the first TV broadcast signal.

With the present invention (as recited in independent claims 15 and 26-28), when generating a composite signal an entire block region of the first TV broadcast signal is not subjected to replacement, only the decoding error part is replaced. Therefore, it is possible to obtain image data of a higher quality by avoiding unnecessary replacement of the first TV broadcast signal.

In the Office Action, the Examiner relies on Noburo for disclosing or suggesting all the features recited in independent claims 15 and 26-28. Additionally, the Examiner relies on the combination of Noburo, Karaoguz and Shikakura for disclosing or suggesting all the features of claim 20 (now included in independent claims 15 and 26-28). In particular, the Examiner relies on ¶[0006], ¶[0015] and ¶[0016] of Noburo for disclosing a synthesizer or synthesizing step; and on Fig. 3 (i.e., elements 303 and 304) of Shikakura for disclosing or suggesting the features of first and second storage devices or steps.

However, the Applicants assert that Noburo fails to disclose the features of the synthesizer or synthesizing step, and Shikakura fails to disclose or suggest the features of first

and second storage devices or steps now recited respectively in independent claims 15 and 26-28, as amended.

Independent claim 15 now recites:

*“a first storage device which stores the composite signal outputted from said synthesizer;
and*

a second storage device which stores the second TV broadcast signal decoded by said decoder.” These features with reference to independent claim 15 are similarly recited in independent claims 26-28.

As noted during the interview conducted on April 26, 2011, with the present invention (as recited in independent claim 15) the first storage device stores the composite signal outputted from the synthesizer, while the second storage device stores the second TV broadcast signal decoded by the decoder. Thus, the first storage device and the second storage device store different information.

However, Shikakura with reference to Fig. 3 discloses a block diagram of a spatial filter with variable transmission characteristics. As disclosed in Fig. 3, line memories 303, 304 are included for delaying the image signal by a line; and latches 305, 306, 307 are included for delaying the image signal by a time corresponding to a pixel.

In the Office Action, the Examiner states that element 303 in Fig. 3 of Shikakura corresponds to the first storage device and element 304 in Fig. 3 or element 404 in Fig. 5 of Shikakura corresponds to the second storage device.

However, the elements 303 and 304 in Fig. 3 are described as line memories for delaying the video signal by one line, and the line memories 303 and 304 are connected in series via the latch 306 (see also e.g., col. 5, lines 9-16). Thus, because of the series connection of the line memories 303, 304, the line memories would store the same data inputted from the input terminal 301.

Moreover, during the interview conducted on April 26, 2011, the Examiner acknowledged that the line memories (i.e., elements 303 and 304) appear to be connected in series via the latch 306, and therefore may store the same information input from the input terminals 301.

Conversely, with the present invention (as recited in independent claim 15), the first storage device stores the composite signal outputted from the synthesizer and the second storage

device stores the second TV broadcast signal decoded by the decoder. In other words, the first storage device and the second storage device store data that is different from each other.

Thus, Shikakura clearly fails to disclose or suggest the first storage device and the second storage device recited in claim 15 (as amended), and Noburo and Karaoguz are not relied on by the Examiner for disclosing or suggesting these features. And, the features noted above with reference to independent claim 15 are similarly recited in independent claims 26-28 (as amended).

Independent claim 15 also recites:

“wherein the synthesizer stores the first TV broadcast signal decoded by the decoder in said first storage device if said detector has not detected the decoding error part of the first TV broadcast signal, and reads out the part of the second TV broadcast signal corresponding to the decoding error part from said second storage device and stores the readout part in said first storage device if said detector has detected the decoding error part of the first TV broadcast signal.” These features with reference to independent claim 15 are similarly recited in independent claims 26-28.

With the present invention (as recited in independent claim 15), the synthesizer stores in the first storage device either the TV broadcast signal in the first storage device or only a part of the second TV broadcast signal corresponding to the decoding error part, depending on whether a decoding error part in the first TV broadcast signal is detected or not. Thus, when generating a composite signal an entire block region of the first TV broadcast signal is not subjected to replacement, only the decoding error part is replaced. Therefore, it is possible to obtain image data of a higher quality by avoiding unnecessary replacement of the first TV broadcast signal.

On the other hand, Noburo in ¶[0006], ¶[0015] and ¶[0016] discloses that a sensing device detects an error in a picture signal and outputs position information to an extracting apparatus. The extracting apparatus then creates an amendment picture signal, which is outputted to a synthesizing unit. The synthesizing unit compounds a 1st picture signal and the amendment picture signal to create a synthetic picture signal.

Although Noburo (i.e., ¶[0006], ¶[0015] and ¶[0016]) discloses the generation of a composite signal, the reference fails to disclose or suggest that the synthesizing unit stores in a first storage device either the TV broadcast signal in the first storage device or only the part of the second TV broadcast signal corresponding to the decoding error part, depending on whether

a decoding error part in the first TV broadcast signal is detected or not, as recited in independent claim 15 and similarly recited in independent claims 26-28. And, Karaoguz and Shikakura are not relied on by the Examiner for disclosing or suggesting these features.

Based on the above discussion, Noburo, Karaoguz and Shikakura, individually or in combination, fail to disclose or suggest all the features recited in independent claims 15 and 26-28 (as amended). Likewise, Noburo, Karaoguz and Shikakura, individually or in combination, fail to disclose or suggest all the features recited in claims 21 and 22 at least by virtue of their dependencies from independent claims 15.

In the Office Action, claims 18 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noburo in view of Boyce et al. (U.S. Publication No. 2006/0126733, hereafter “Boyce”); and claim 25 is rejected under 35 U.S.C. 103(a) as being upatentable over Noburo in view of Shikakura.

Claim 18 has been cancelled thereby rendering the above rejection to this claim moot. Additionally, claims 25 and 29 depend from independent claim 15. As noted above, Noburo, Karaoguz and Shikakura fail to disclose or suggest all the features recited in independent claim 15 (as amended). Additionally, Boyce fails to overcome the deficiencies noted above in Noburo, Karaoguz and Shikakura.

Accordingly, no combination of Noburo, Karaoguz, Shikakura and Boyce would result in, or otherwise render obvious, claims 25 and 29 at least by virtue of their dependencies from independent claim 15. Additionally, new claim 30 depends from independent claim 15, and therefore is distinguished from the prior art of record at least by virtue of its dependency from independent claim 15.

Finally, independent claim 15 also now recites:

“a timesharing unit which timeshares the first TV broadcast signal and the second TV broadcast signal received by said receiver for outputting.” This feature noted above with reference to independent claim 15 is similarly recited in independent claims 26-28.

The above feature was previous recited in claim 20, which has now been cancelled. In the Office Action, the Examiner relies specifically on Karaoguz for disclosing or suggesting this feature. In particular, the Examiner relies on the decoder core module 242 shown in Fig. 2 of Karaoguz.

However, as noted during the interview conducted on April 26, 2011, provisional application No. 60/504868 from which Karaoguz claims priority fails to disclose Fig. 2 of Karaoguz. Therefore, the filing date with respect to the decoder core module 242 shown in Fig. 2 of Karaoguz can be no earlier than June 24, 2004 (i.e., the filing date of the non-provisional application No. 10/875,894). On the other hand, the present application claims priority to Japanese Patent Application No. 2004-031775 filed February 9, 2004, which antedates the filing date of Karaoguz of June 24, 2004.

III. Conclusion

In light of the above, the Applicants submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the present application to issue. The Examiner is also requested to contact the undersigned attorney by telephone to resolve any remaining issues in the present application.

Respectfully submitted,

Tsuyoshi ISOMURA et al.

/Mark D. Pratt/

By 2011.04.29 12:03:50 -04'00'

Mark D. Pratt
Registration No. 45,794
Attorney for Applicants

MDP/mac
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
April 29, 2011